

Diabetes Care: New Clinical Guidelines and Leadership Council

By R James Dudl, MD; Helen S Pettay, BA; Michelle Wong, MPH, MPP

"Diabetes remains at the leading edge of opportunity for improving the health of Kaiser Permanente members," says Paul Wallace, MD, Care Management Institute (CMI) Executive Director. There are many reasons why this is the case.

In 2002, Kaiser Permanente (KP) delivered care to more than 500,000 adults with diabetes,¹ comprising 9.1% of KP's adult membership.² If all the adult KP members with diagnosed diabetes lived in one city, it would be larger than Boston, Portland, Denver, Long Beach, Virginia Beach, or Oakland and would be growing as rapidly as a Sunbelt retirement haven. The prevalence of diabetes in the United States as a whole increased by 33% between 1990 and 1998, marching in lockstep with the growing epidemic of overweight and obesity.²

Diabetes is costly; estimated US direct medical costs in 2002 were \$92 billion.³ Indirect

costs due to disability, lost productivity, and premature mortality consumed an estimated additional \$40 billion.³ Long-term complications—heart disease, hypertension, stroke, kidney disease, retinopathy, and neuropathy—account for the high costs. Adults with diabetes have heart disease death rates and stroke mortality rates two to four times those of adults without diabetes. Together, heart disease and stroke are responsible for 65% of deaths among adults with diabetes.⁴

Many costs cannot be quantified. Diabetes, like other chronic conditions, extracts an incalculable toll of pain and suffering from patients, family, and friends. For all these reasons—high prevalence and mortality rates, high direct and indirect costs, and negative impact on quality of life—it was one of the first clinical priority areas identified by the

CMI several years ago. At the time, diabetes care centered on physicians managing patients' blood glucose levels by prescribing medications and dietary modifications.

"Over time, we've moved from thinking mainly about controlling disease to a framework of population-based care, the stratification of needs, adaptation of care delivery to individual needs, the importance of managing comorbid conditions well, and, most recently, the engaged patient as the locus of control for pursuing health in the face of a chronic condition," says Dr Wallace.

Good glycemic management is still a key part of diabetes management. But revised diabetes clinical guidelines released by the CMI in March include both a major revision and a pivotal new topic area. Together, they signal a sea change in caring for KP members with diabetes.

Setting Up a System for Setting Policy

The process of guidelines revision involves a working group of clinical experts and methodologists. The workgroup is devoted to creating excellent content within the domain of diabetes care as members identify rigorous evidence and consider its practical implementation.

However, CMI also identified the need to address issues beyond content development: identifying clinical targets, influencing policy, and guiding the direction of CMI's diabetes-related work. To fulfill those functions, the Diabetes Leadership Council was formed, comprising a member from each Region.

"The goal of the Diabetes Leadership Council is to bring together regional diabetes leaders to improve the health of KP's members with diabetes," says Michelle Wong, CMI Care Management Consultant. "We want to use the experience of the regions to ensure that diabetes care within KP evolves in the best possible direction." The group will meet quarterly.

Diabetes Leadership

Council members include:

Chair:	Jim Dudl, MD
Colorado:	John Merenich, MD
Georgia:	Willie Rainey, MD
GHC:	David McCulloch, MD
Hawaii:	Brian O'Connor, MD
MAS:	Howard Tracer, MD
NCR:	Fred Hom, MD
NW:	Michael Herson, MD
Ohio:	Mark Roth, MD
SCR:	Frederick Ziel, MD, CDE

Rethinking Statins

The guideline for using cholesterol-lowering medications in diabetic patients has been substantially simplified. Prior to the revision, statin use was predicated on baseline cholesterol levels.

"It's been clearly shown that the use of statins in diabetics lowers the risk of cardiovascular disease by at least 25%, regardless of baseline cholesterol level, with a mid-dose statin regimen like 40 mg of lovastatin. Titrating statins has also been shown to be extraordinarily difficult," says Jim Dudl, MD, endocrinologist (KP-SCR) and leader of a newly formed CMI diabetes leadership council (see sidebar).



R James Dudl, MD, (top), has been with SCPMG in San Diego since 1974. He has been Cochair of the Southern California Regional Diabetes Steering Group since 1992 and has served as CMI Diabetes Clinical lead since 1997. E-mail: jim.r.dudl@kp.org.

Helen S Pettay, BA, (right), is the Communications Director for the Care Management Institute. E-mail: helen.pettay@kp.org.

Michelle Wong, MPH, MPP, (left), is the Care Management Consultant for Diabetes at KP Care Management Institute. She cofacilitated the development of CMI's Coronary Artery Disease, Secondary Prevention guidelines. E-mail: michelle.wong@kp.org.



“With the data from the Heart Protection Study,⁵ we were able to simplify the whole process. Every diabetic patient is offered a midlevel statin dose with a single lab test to follow up. The concept is safer than aspirin use, and we can have a much higher percentage of diabetic patients on statins,” he says.

The Heart Protection Study, a randomized controlled trial of nearly 6000 adults, showed that cholesterol-lowering pharmacotherapy offers significant cardiovascular risk reduction for adults with diabetes without manifest coronary artery disease or high cholesterol levels, thus obviating the need for baseline cholesterol testing.⁵

Relocating the Hub of Care

A new topic area in the guidelines addresses the rapidly changing health care environment. “Two forces are making the way we practiced diabetes care a few years ago both obsolete and dysfunctional,” says Dr Dudl.

“The level of care necessary for a diabetic patient to have good medical care has increased many times over from ten years ago. It used to be the case that a member with diabetes would come into the clinic and get blood drawn. A week later, we’d get the results and call the patient to adjust one thing or another. Now, good diabetes care means fine-tuning blood glucose daily or more frequently.”

Secondly, he says, technology has moved the essentials of treatment from the clinic setting to the patient’s home. Dr Dudl continues, “Now the hub of care is in the patient’s home, because that’s where the data are. Patients do fingerstick testing. They go into the lab and get blood drawn, then call and get the results.”

Targets and tools empower patients by defining a desirable blood glucose range and then providing the necessary means to assess and achieve it. Titration schedules for insulin dosages, for instance, put patients in control of their blood glucose levels.

The guidelines workgroup reviewed the literature and found that self-care works well for a number of conditions. “Self-management is the way to address the fact that the hub of care is shifting. We included a self-management guideline so that good diabetes self-care becomes the standard, not the exception,” he concludes.

CMI Diabetes Guidelines Project Management Team	
Jim Dudl, MD	Clinical Lead, KP Southern California
Michelle Wong, MPH, MPP	Project Manager, CMI
Jill Bowman	Evidence-Based Medicine Methodologist, CMI

CMI Diabetes Guidelines Workgroup	
Colorado	Larry Ballonoff, MD John Merenich, MD Mongthuong Tran, PharmD
Georgia	Willie Rainey, MD
Group Health Cooperative	David McCulloch, MD
Hawaii	Ivie Kumura, PharmD, CDE Brian O Connor, MD
Mid-Atlantic States	Susan McDonough, MS, RD, CDE Howard Tracer, MD
Northwest	Radhika Breden, MD (Prevention Partners) Michael Herson, MD Dean Klopfenstein, RPh, CDE
Northern California	Jennifer Day, PharmD (California Division) Rick Dlott, MD Fred Hom, MD Nancy Moline, RN, MEd, CDE Denise Portello, MPH, RD Laura Skabowski, MS
Ohio	Mary Ann Dzurec, PharmD Mark Roth, MD
Southern California	Catharina Wong, MPH Frederick Ziel, MD, CDE

Recommending a Longer Look at Gestational Diabetes

A second new area in the guidelines addresses the risk that women with gestational diabetes will progress to Type 2 diabetes. “Women with gestational diabetes are at increased risk for developing Type 2 diabetes and should be offered weight control and lifestyle modification advice,” says Michelle Wong, CMI Care Management Consultant and co-leader of the guidelines workgroup.

To keep pace with emerging evidence, clinical guidelines are revised every two years. ❖

^a The case identification rate within KP is slightly higher than the 8.7% prevalence rate of diagnosed diabetes in the US adult population, which may reflect a true higher prevalence rate among KP members or superior case identification practices.

References

1. Kaiser Permanente Medical Care Program. Care Management Institute. Kaiser Permanente diabetes outcomes report. Seventh annual report, data from 2002. Oakland (CA): Care Management Institute, Kaiser Permanente Medical Care Program; 2003. Available from:

[http://pkc.kp.org/national/cmi/dept/measurement/reports/diabetes VII/Diabetes VII Outcomes.pdf](http://pkc.kp.org/national/cmi/dept/measurement/reports/diabetesVII/DiabetesVIIOutcomes.pdf) (Accessed June 28, 2004).

2. Mokdad AH, Ford ES, Bowman BA, et al. Diabetes trends in the US :1990-1998. *Diabetes Care* 2000 Sep;23(9):1278-83.
3. Hogan P, Dall T, Nikolov P; American Diabetes Association. Economic costs of diabetes in the US in 2002. *Diabetes Care* 2003 Mar;26(3):917-32.
4. American Diabetes Association. National diabetes fact sheet (Web site). Available from: www.diabetes.org/diabetes-statistics/national-diabetes-fact-sheet.jsp (accessed May 20, 2004).
5. MRC/BHF Heart Protection Study of cholesterol-lowering therapy and of antioxidant vitamin supplementation in a wide range of patients at increased risk of coronary heart disease death: early safety and efficacy experience. *Eur Heart J* 1999 May;20(10):725-41.

Kaiser Permanente clinicians can access the revised diabetes guidelines on Clinical Library (formerly Permanente Knowledge Connection) at : <http://cl.kp.org/pkc/national/cmi/programs/diabetes/management.html>.